Claims

[c1]   1.A method for providing an electronic selection of at

least one color ink formula that is suitable to produce a

color for a colored print, wherein producing the color is

based on at least one criteria, the method comprising:

(a)electronically providing a plurality of colors and a plu-

rality of

criteria;

(b)electronically providing a plurality of color ink formu-

las, each of

the plurality of color ink formulas capable of defining a

color ink suitable for producing at least one color for at

least one colored print and based on the at least one cri-

teria;

(c)electronically making a color selection from the

plurality of colors;

(d)electronically making a selection of at least one crite-

ria

from the plurality of criteria; and

(e)electronically matching the selected color and the at

least one

selected criteria thereby allowing for the electronic se-

lection of the at least one color ink formula that is suit-

able to produce the color.

[c2] 2.The method of claim 1, further comprising: electronically selecting a suitable color ink formula in step e; and electronically transmitting to a color product development specialist the color ink formula.

[c3] 3.The method of claim 2, wherein the color product development specialist is at least one of a manufacturer, separator, printer, designer and ink manufacturer.

[c4] 4.The method of claim 1, wherein the criteria includes at least one of a substrate, financial cost, availability and pigment formulation.

[c5] 5.The method of claim 1, wherein the criteria includes the ability for a color to resist at least one of sunlight, water, solvent, acid, alkali, temperature, humidity, abrasion, cracking, bending, light and ultraviolet radiation.

[c6] 6.The method of claim 1, wherein the steps a – e occur over a communication network.

[c7] 7.The method of claim 6, wherein the communication network is the Internet.

[c8] 8.The method of claim 6, wherein the communication network is an intranet.

[c9] 9. The method of claim 1, further comprising storing color information in an electronic color library, the color information representing the plurality of colors.

[c10] 10. The method of claim 9, wherein the color information is formatted as at least one of spectral data, CIEXYZ, CIELAB, CIELUV, CIEUVW, color space, chromaticity coordinates xy, u"v" and uv, computer graphics triplets including RGB, CMYK, HLS, HIS, HSV and HVC, Munsell notation, Swedish Natural Color System notation, Color-Curve notation, RAL notation, Pantone color number, DIC color number, opal tone, DIN color notation, Color Marketing Group color name, and Color Association of the United States color name.

[c11] 11. The method of claim 9, further comprising providing an assigned name for each color of the plurality of colors.

[c12] 12. The method of claim 9, wherein the electronic color library resides on at least one site processor.

[c13] 13. The method of claim 9, further comprising displaying an electronic palette of the plurality of colors represented by the color information stored in the electronic color library.

[c14] 14. The method of claim 1, wherein the step of providing

the plurality of colors comprises displaying an electronic palette.

[c15]   15.A method for electronically providing a selection of color ink formulas, the method comprising:
(a)receiving electronic color information, the electronic color
information representing a plurality of colors;
(b)receiving electronic criteria information, the electronic criteria
information representing a plurality of criteria having an impact on at least one of the plurality of colors;
(c)receiving electronic color ink formula information, the electronic
color ink formula information representing formulas for making color ink suitable for producing the plurality of colors and based on at least one of the plurality of crite-ria;
(d)providing an electronic color selection, the electronic color
selection representing a choice of one of the plurality of colors; and
(e)providing the selection of electronic color ink formulas that is
suitable to produce a color based on the electronic color selection and based on the at least one of the plurality of

criteria.

[c16] 16. The method of claim 15, further comprising electronically transmitting to at least one color product development specialist an electronic color ink formula corresponding with the selection of electronic color ink formulas.

[c17] 17. The method of claim 16, wherein the at least one color product development specialist is at least one of a manufacturer, separator, printer, designer and ink manufacturer.

[c18] 18. The method of claim 15, wherein the criteria includes a substrate.

[c19] 19. The method of claim 15, wherein the criteria includes the ability for a color to resist at least one of water, solvent, acid, alkali, temperature, humidity, abrasion, crocking, bending, light and ultraviolet radiation.

[c20] 20. The method of claim 15, wherein the steps a – e occur over a communication network.

[c21] 21. The method of claim 20, wherein the communication network is the Internet.

[c22] 22. The method of claim 20, wherein the communication network is an intranet.

[c23] 23. The method of claim 15, further comprising storing the electronic color information in an electronic color library.

[c24] 24. The method of claim 23, wherein the electronic color information is formatted as at least one of spectral data, CIEXYZ, CIELAB, CIELUV, CIEUVW, color space, chromaticity coordinates xy, u"v" and uv, computer graphics triplets including RGB, CMYK, HLS, HIS, HSV and HVC, Munsell notation, Swedish Natural Color System notation, ColorCurve notation, RAL notation, Pantone color number, DIC color number, opal tone, DIN color notation, Color Marketing Group color name, and Color Association of the United States color name.

[c25] 25. The method of claim 23, further comprising providing an assigned name for each color of the plurality of colors.

[c26] 26. The method of claim 23, wherein the electronic color library resides on at least one site processor.

[c27] 27. The method of claim 15, wherein the step of providing a color selection comprises providing an electronic color palette.

[c28] 28. A method for electronically selecting at least one

color ink formula that is suitable to produce a color for a colored print, wherein producing the color is based on at least one of a plurality of criteria, the method comprising:

(a)receiving a physical sample of the color;

(b)generating electronic color information from the physical sample,

the electronic color information representing the color;

(c)electronically providing the plurality of criteria;

(d)electronically providing at least one color ink formula, each of the

at least one color ink formula capable of defining a color ink suitable for producing the color for the colored print and based on at least one of the plurality of criteria;

(e)making an electronic selection of at least one criteria from the

plurality of criteria; and

(f)electronically matching the electronic color information with the

selected criteria thereby allowing for the electronic selection of the at least one suitable color ink formula.

[c29]   29.The method of claim 28, further comprising electronically transmitting to at least one color product development specialist an electronic color ink formula corresponding with the selection of electronic color ink for-

mula.

[c30]   30.The method of claim 28, wherein the criteria includes
at least one of a substrate, availability, financial cost and
pigment formulation.

[c31]   31.The method of claim 28, wherein the criteria includes
the ability for a color to resist at least one of water, sol-
vent, acid, alkali, temperature, humidity, abrasion,
cracking, bending, light and ultraviolet radiation.

[c32]   32.A system for electronically providing a selection of a
plurality of color ink formulas to produce a color for a
colored print and based on at least one of a plurality of
criteria, the system comprising: the method comprising:
(a)a memory, the memory electronically providing a plu-
rality of
colors and the plurality of criteria, the memory further
electronically providing a plurality of color ink formulas,
each of the plurality of color ink formulas capable of
defining a color ink suitable for producing at least one
color for a colored print and based on at least one of the
plurality of criteria;
(b)an electronic color selection module, the electronic
color selection
module providing an interface to make an electronic
color selection from the plurality of colors;

(c)an electronic criteria selection module, the electronic criteria

selection module providing an interface to make an electronic selection of at least one criteria from the plurality of criteria; and

(d)an electronic matching module, the electronic matching module

matching the selected color and the at least one selected criteria thereby allowing for the electronic selection of the at least one suitable color ink formula.

[c33]   33.The system of claim 32, further comprising a communication network.

[c34]   34.The system of claim 33, wherein the communication network is the Internet.

[c35]   35.The system of claim 33, wherein the communication network is an intranet.

[c36]   36.The system of claim 32, further comprising a color ink formula transmission module, the color ink formula transmission module transmitting at least one of the plurality of color ink formulas to at least one color product development specialist.

[c37]   37.The system of claim 32, wherein the electronic color information is formatted as at least one of spectral data,

CIEXYZ, CIELAB, CIELUV, CIEUVW, color space, chromaticity coordinates xy, u"v" and uv, computer graphics triplets including RGB, CMYK, HLS, HIS, HSV and HVC, Munsell notation, Swedish Natural Color System notation, ColorCurve notation, RAL notation, Pantone color number, DIC color number, opal tone, DIN color notation, Color Marketing Group color name, and Color Association of the United States color name.

[c38]   38.The system of claim 32, further comprising an electronic
color display module that displays the electronic color information as a palette of colors.

[c39]   39.A method for providing an electronic selection of at least one colorant formula that is suitable to produce a color for a colored product and based on at least one criteria, the method comprising:
(a) electronically providing a plurality of colors and a plurality of
criteria;
(b)electronically providing a plurality of colorant formulas, each of
the colorant formulas capable of defining a colorant suitable for producing at least one colored product, wherein the producing the colored product is based on the at least one criteria;

(c)making an electronic color selection from the plurality of colors;

(d)making an electronic selection of at least one criteria from the

plurality of criteria; and

(e)electronically matching the selected color and the selected

criteria thereby allowing for the electronic selection of the at least one colorant formula that is suitable to produce the color.

[c40] 40.The method of claim 39, further comprising: electronically selecting a suitable colorant formula in step e; and electronically transmitting to at least one color product development specialist a colorant formula corresponding with the electronic selection of the colorant formula.

[c41] 41.The method of claim 40, wherein the color product development specialist is at least one of a manufacturer, separator, printer, designer and colorant manufacturer.

[c42] 42.The method of claim 39, wherein the criteria includes a substrate.

[c43] 43.The method of claim 39, wherein the criteria includes the ability for a color to resist at least one of sunlight,

water, solvent, acid, alkali, temperature, humidity, abrasion, cracking, bending, light and ultraviolet radiation.

[c44]   44. The method of claim 39, wherein the criteria includes at least one of financial cost, availability and pigment formulation.

[c45]   45. The method of claim 39, wherein the steps a – e occur over a communication network.

[c46]   46. The method of claim 45, wherein the communication network is the Internet.

[c47]   47. The method of claim 45, wherein the communication network is an intranet.

[c48]   48. The method of claim 39, further comprising storing electronic color information in an electronic color library, the electronic color information representing the plurality of colors.

[c49]   49. The method of claim 48, wherein the electronic color information is formatted as at least one of spectral data, CIEXYZ, CIELAB, CIELUV, CIEUVW, color space, chromaticity coordinates xy, u"v" and uv, computer graphics triplets including RGB, CMYK, HLS, HIS, HSV and HVC, Munsell notation, Swedish Natural Color System notation, ColorCurve notation, RAL notation, Pantone color num-

ber, DIC color number, opal tone, DIN color notation, Color Marketing Group color name, and Color Association of the United States color name.

[c50] 50. The method of claim 48, further comprising providing an assigned name for each color of the plurality of colors.

[c51] 51. The method of claim 48, wherein the electronic color library resides on at least one site processor.

[c52] 52. The method of claim 48, further comprising displaying an electronic palette of the plurality of colors represented by the electronic color information stored in the electronic color library.

[c53] 53. A method for electronically providing a selection of colorant formulas, the method comprising:
(a) electronically receiving color information, the color information representing a plurality of colors;
(b) electronically receiving criteria information, the criteria information representing a plurality of criteria having an impact on the at least one plurality of colors;
(c) electronically receiving colorant information, the colorant information representing formulas for making at least one colorant suitable for producing the plurality of colors and based on at least one of the plurality of

criteria;

(d)electronically providing an color selection, the color selection representing a choice of one of the plurality of colors; and

(e)electronically providing the selection of colorant information that is suitable to produce a color and based on the color selection and based on the plurality of criteria.

[c54]   54.The method of claim 53, further comprising electronically transmitting to at least one color product development specialist a colorant formula corresponding with the selection of colorant information.

[c55]   55.The method of claim 54, wherein the at least one color product development specialist is at least one of a manufacturer, separator, printer, designer and ink manufacturer.

[c56]   56.The method of claim 53, wherein the criteria includes a substrate.

[c57]   57.The method of claim 53, wherein the criteria includes the ability for a color to resist at least one of water, solvent, acid, alkali, temperature, humidity, abrasion, crocking, bending, light and ultraviolet radiation.

[c58]   58.The method of claim 53, wherein the steps a – e oc-

cur over a communication network.

[c59] 59. The method of claim 58, wherein the communication network is the Internet.

[c60] 60. The method of claim 58, wherein the communication network is an intranet.

[c61] 61. The method of claim 53, further comprising storing the color information in an electronic color library.

[c62] 62. The method of claim 61, wherein the color information is formatted as at least one of spectral data, CIEXYZ, CIELAB, CIELUV, CIEUVW, color space, chromaticity coordinates xy, u"v" and uv, computer graphics triplets including RGB, CMYK, HLS, HIS, HSV and HVC, Munsell notation, Swedish Natural Color System notation, Color-Curve notation, RAL notation, Pantone color number, DIC color number, opal tone, DIN color notation, Color Marketing Group color name, and Color Association of the United States color name.

[c63] 63. The method of claim 53, further comprising providing an assigned name for each color of the plurality of colors.

[c64] 64. The method of claim 61, wherein the electronic color library resides on at least one site processor.

[c65]   65.The method of claim 53, further comprising display-
ing an electronic palette of the plurality of colors.